

# **Training evaluation report**

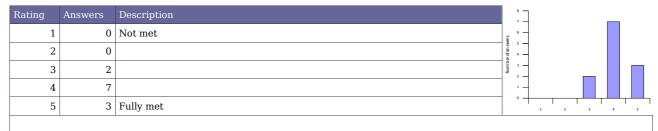
Training session: Embedded Linux kernel and driver development Training dates: Feb. 15 - 19, 2010 (5 days) Country: Spain

Number of participants: 17 Returned evaluation forms: 12

Thank you for having organized a Free Electrons training session! Here is a wrap-up of evaluations from participants.

# Learning objectives

#### 1. How well did the course meet your learning objectives?



#### 2. How was the duration of the course?

Rating	Answers	Description	7 -	1			
1	1	Too short. Couldn't learn enough in such a short time.	6 - 5 -	1		_	
2	6	A little too short	of ansv	-			
3	5	Just fine	Number 5 –	1			
4	0	A little too long	2 1 -				
5	0	Definitely too long. The concepts could be learned in much less time.	0 —	1	2	3 4	5
2 - I was	interested i	n network drivers					
3 - Too lo	ong labs						
2 - A lot o everyday		on to understand everything in such a short duration. I think that this is because I o	lon't u	se this	thing	in my	

1 - Too many things to learn in a short time



# **Lecture materials**

### 3. How helpful were the lecture materials?

Rating	Answers	Description		10 9		_	
1	0	Not helpful. Made things more difficult to learn and understand.	wers	8 — 7 —			
2	1		of ans	6 — 5 —			
3	1		Number	4 — 3 —			
4	9		-	2 — 1 —			_
5	1	Really made things easier to understand and learn.		0 —	1 2 3 4	4	5
4 - Some	diagrams li	ke the ones the instructor drew by hand would be nice in the slides					

4. Will you recommend these materials to others?

Rating	Answers	Description	9 -				_
1	0	No. Not helpful without following the sessions.	7 –				
2	0		of ansv				
3	1		umber 8				- I I
4	3		2 2 - 1		Г	-	
5	8	Definitely	0-	1	2	3 4	5
	-						

#### 5. If you have Linux project opportunities, will you use these materials again?

Rating	Answers	Description	8	]				_
1	0	No. I will look for other sources of information.	wers	-				
2	0		sue jo ,	1				
3	3		Number 3	_				
4	2		1	-				
5	7	Definitely	0	1	2	3	4	5
3 - I'm no	ot sure, but l	I could try to.						



# Instructor added value

#### 6. How knowledgeable was the instructor?

Answers	Description	1	° –				_	,
0	Not enough for my own technical experience.	ers	8 -					
0		of answ	6 — 5 —					
0		umber o	4 — 3 —					
3		ž	2 <u>-</u> 1 -					
9	More than enough for my own experience.		• +	1 2	3	4	5	Ч
	0 0 0 3	Answers  Description    0  Not enough for my own technical experience.    0	0  Not enough for my own technical experience.    0	0  Not enough for my own technical experience.    0  7    0  7    3  7	0  Not enough for my own technical experience.    0    0    3	0  Not enough for my own technical experience.    0  7    0  6    0  4    3  2	0  Not enough for my own technical experience.    0    0    3	0  Not enough for my own technical experience.    0    0    3

# 7. Did instructor oral explanations add value to the lecture materials?

Rating	Answers	Description	12	7
1	0	No added value to reading the materials.	10 12 8	
2	0		of an swe	_
3	0		Number 4	-
4	2		2	
5	10	Yes. The instructor really made very useful oral explanations.	0	1 2 3 4 5
5 - Your l	English is so	good sometimes I couldn't even follow your explanations. Please speak slower!!	xD	

#### 8. How well did the instructor answer questions from the audience?

1 0 Poorly. Didn't try to understand the questions well or rarely managed to find useful answers.	
4 2	
5 9 Answered very well to questions from the audience	

### 9. Was the instructor helpful with practical labs?

Rating	Answers	Description	ian 12	
1	0	No, not enough available and helpful during the labs.	Jo 10	
2	0		UNN 6	_
3	0		4	-
4	1		2	
5	11	Yes. The instructor definitely helped to make labs a learning opportunity.	0	1 2 3 4 5
5 - The 2	instructors	;)		



# **Training labs**

#### 10. How useful were the training labs?

Rating	Answers	Description	evers –			
1	0	Not useful. Didn't add significant value to the lectures.	r of an			
2	0		94 6 -			
3	2		4			
4	8		2 -			
5	2	Very useful. Helped to highlight things not understood and build useful experience.	0	1 2 3	4	5

#### 11. How difficult were the training labs?

Rating	Answers	Description	7 -					
1	0	Too difficult. Didn't help or even discouraged a beginner to get more familiar with the tools and concepts.	of answers س م					
2	6	A bit too difficult. Would be better if the lab instructions gave a bit more details about explanations.	Japan 4					
3	5	Just fine. Prompted me to look for answers, get my own experience and find my own solutions.	3 — 2 —					
4	1	Too easy for my own technical level.	1 —					
5	0	Too easy for everyone. Should challenge participants more and help everyone to practice on real issues.	0 -	1	2	3	4	5
4 - Peopl	e skills were	e too different						
2 - Some	times you fe	el a little bit lost						

#### 12. Was enough time dedicated to the practical labs?

Rating	Answers	Description	27					
1	0	No. More practice is needed	wers					
2	6	A little bit more time would help.	of ans					
3	3	Just fine	Number 7					
4	3	A little bit less time would be enough.	1 -					
5	0	Don't need to spend so much time on labs. On-the-job practice is best	• +	1	2	3	4	5
		was OK, but in our case the need to wait for some of us to complete the first labs hore complicated ones.	eft us v	with l	ess ti	me t	0	

3 - The first 3 days we have had too much time. But the 4th day, I couldn't finish all the labs.



# **Training conditions**

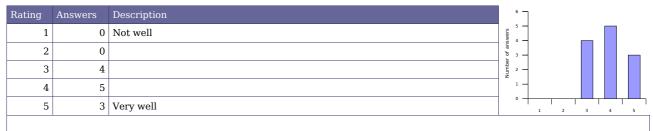
13. How do you rate training conditions (room size, equipment, environment...)?

Rating 4	Answers	Description	8		_	
1	0	Poor.	s e –			
2	0		of ans			
3	2		Number 2 2	_		
4	7		1 -			
5	3	Very good.	• –	1 2 3	4	5

#### 14. How do you rate the training equipment (mainly computers)?

Rating	Answers	Description	6 -				
1	0	Poor. Not powerful enough to execute practical labs.	siaw 4				
2	0		of ans	-			
3	2		In per 2 –		Γ		
4	5		1 -				
5	3	Very good. Very little time waiting, more time learning.	0 -	1	2	3 4	5
						-	

15. How well was the course organized (program, registration, meeting the schedule...)?





# **Overall rating**

## 16. How much did you learn?

Rating	Answers	Description	10 - 9 -	]			
1	0	Definitely not much	8 – 8 –	-			
2	0		of ans	-			
3	2		Jaquan 3	-			
4	9		2				
5	1	Definitely more than I expected.		1 2	3	4	5
3 - I alrea	ady had hig	n hopes for this course, so it was just as good as I expected.					

## 17. How useful will this course be in your daily job?

Rating	Answers	Description	4,5	]		_	
1	0	Not useful.	S 3,5 -			_	
2	1		5 2,5 -				
3	3		9 2 -				
4	4		0,5 -				
5	4	Very useful. Will make my job easier and more productive.	0	1	2 3	4	5
	-	·					

### 18. Would you recommend this course to others?

Rating Ar	nswers	Description	1	<sup>10</sup>					_
1	0	No.	vers	8 — 7 —					
2	0		ofansv	6 — 5 —					
3	0		um ber	4 — 3 —					
4	3		z	2 — 1 —					
5	9	Yes, definitely		• -	1	2	3	4	5



#### 19. Overall rating

Rating	Answers	Description	:	7 -
1	0	Very disappointing		6 -
2	0	Disappointing	swers	5 -
3	0	A little bit disappointing	ofan	4 —
4	0	ОК	umber	3 -
5	3	Pretty good	PZ :	2
6	6	Very good		
7	2	Excellent		1 2 3 4 5 6 7

#### 20. An extra session?

Rating	Answers	Description	6 ]
1	1	No	
2	0		
3	4	Why not?	
4	2		
5	5	Yes, definitely	

#### Number of votes for topics in an extra session

Understanding the Linux kernel						Embedded system development	Miscellaneous needs		
Process management	3	USB device drivers		Processor specific code		Lightweight tools	1	Java	
Filesystem implementation	1	USB host drivers		Board specific code		Embedded system development tools	2	Real-time	4
Memory management	3	PCI drivers		Board specific interrupt support code		Cross-compiling toolchains	2	Audio	2
Scheduling implementation	2	Network drivers	1	DMA support	1	Debugging solutions	3	Video	
Bootstrap code	1	Block drivers		Bootloader development	2	Software development tools	3	uClinux	
		Flash drivers				Programming with graphical libraries	2	Voice over IP	1
		I2S drivers				POSIX API	3		
		Input drivers				System optimization	3		
		Sound drivers	3			Root filesystem creation			
		Video drivers	1						

## **Free Electrons comments**

Thanks to the (sometimes oral) suggestions from the audience, we will improve future training sessions...

- By adding more diagrams to the lecture slides.
- By speaking slower.
- By proposing more tasks / labs to people who progress faster, to keep them busy all the time.



# Life after training

After this training session, do not hesitate to get back to us! Here are things we could do to support you in your embedded Linux projects:

- More training: you may be interested in the other training sessions that we propose, either embedded Linux system development or Linux kernel and driver development, depending on the course you have already taken. See <u>http://free-electrons.com/training</u> for details.
- If some people in your organization missed the session, and you don't have enough requests to organize another session, they can choose to go to our public training sessions. See <a href="http://free-electrons.com/training/sessions">http://free-electrons.com/training/sessions</a> for details.
- Linux kernel porting. Adding Linux support to your boards, or supporting you in doing this.
- Having your board support code merged in mainstream sources (Linux, U-boot), so that your sources are maintained by the community. This also means for customers that your boards will be supported for a long time.
- System development and integration. Creating demos and prototypes.
- System optimization: improving system performance and features (power consumption, speed, size...)
- Investigating and fixing nasty bugs that you don't have time to cope with by yourselves.

See http://free-electrons.com/services for details.